

007427353

WPI Acc No: 1988-061288/198809

XRAM Acc No: C88-027649

**New fluoroazetidinone derivs. - useful as intermediates for  
fluorocarbapenem antibiotics**

Patent Assignee: SAGAMI CHEM RES CENTRE (SAGA )

Number of Countries: 001 Number of Patents: 001

Abstract (Basic): JP-63017859 A ✓

New fluoroazetidinone derivs. are of formula (I). In (I) R1 is H or trialkylsilyl; R2 is H or amino-protecting gp.

The reaction is carried out in presence of an imidazole (e.g. imidazole at a temp. of -78 to 100 deg.C. Redn. of (IV) is achieved with L-selecdride, zinc borohydride, NaBH<sub>4</sub>, diisobutyl-aluminium 2,6-di-t-butyl-4-methylphenoxide, etc. in a solvent chosen from THF, Et<sub>2</sub>O, MeOH, EtOH, benzene, toluene, xylene, etc. according to the reducing agent used. The reaction proceeds smoothly at -80 deg.C or room temp. Fluorination of (V) is achieved with diethylaminofluorochloroethane, phenyltetrafluoro-phosphorane, difluorotriphenylphosphorane, diethylaminosulphur trifluoride, piperidinosulphur trifluoride, perfluoropropene-dialkylamine, etc. The reaction is conducted in a solvent, e.g. CH<sub>2</sub>Cl<sub>2</sub>, CHCl<sub>3</sub>, Et<sub>2</sub>O, THF, at a temp. of -110 - 100 deg.C, pref. -11=-25 deg.C.

USE/ADVANTAGE - (I) is useful as intermediate in prepn. of fluorocarbapenem antibiotics. (I) may be prepd. from diketene (II) and cpd. (III).

0/0

Title Terms: NEW; FLUORO; AZETIDINONE; DERIVATIVE; USEFUL; INTERMEDIATE;  
FLUORO; CARBA; PENEM; ANTIBIOTIC

Derwent Class: B03

International Patent Class (Additional): C07D-205/08